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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,772	08/24/2001	Malgorzata A. Brothers	TI-32322	2924
23494	7590	03/01/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED			LIANG, REGINA	
P O BOX 655474, M/S 3999			ART UNIT	
DALLAS, TX 75265			PAPER NUMBER	
			2674	

DATE MAILED: 03/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/938,772	<b>Applicant(s)</b> BROTHERS ET AL.	
	<b>Examiner</b> Regina Liang	<b>Art Unit</b> 2674	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Claim Rejections - 35 USC § 103*

2. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Applicant's disclosure, page 1, lines 23-24 and Fig. 1) in view of Eisenstein (US. PAT. NO. 5,067,102).

As to claim 1, Applicant's admitted prior art teaches a handheld device having a user interface capable of selection of mathematical object of a more complex mathematical object comprising a screen capable of display mathematical objects (screen 11 shown in Fig. 1) and a cursor (symbol inherent when screen is on to indicate a desired item on screen 11 in Fig. 1); a key panel having keys at least capable of selecting positions of the cursor and moving the cursor horizontally or vertically on the screen (directional keys located on top right or key panel shown in Fig. 1); a processor (processor 13 shown in Fig. 1) for executing programming that provides a user interface to allow a user to perform the following steps: a) scroll the cursor to a valid mathematical object in a historical display (Applicant's disclosure, page 1, lines 23-24).

However, Applicant's admitted prior art fails to expressly teach a user interface allowing the user to perform following steps: activating a sub-expression mode having a selection box, size and position the selection box over a valid object, and copy the object.

Eisenstein teaches a calculator for entering a mathematical expression displayed in graphical format. Col. 4, lines 57-59 of Eisenstein teaches the mathematical expression can be recalled for editing such expressions. Figs. 6a-6e of Eisenstein teaches a program routine for

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editing the expressions comprising activate a sub-expression mode having a selection box (pressing key 28, the cursor is moved to the multiplier operator of subexpression 50 as shown in Fig. 6b, the highlighting portion corresponds to the selection box), size and position the selection box over a valid object (as in Fig. 6c, by pressing the menu key EXPR, the size and position of the highlighting portion is changed), copy the object (pressing key EDIT to copy the object as shown in Fig. 6d). Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the user interface of the handheld device of Applicant's admitted prior art to have the editing feature including activate a sub-expression mode having a selection box, size the position the selection box over a valid object, and copy the object for allowing the user to edit the subexpression using the appropriate keys as taught by Eisenstein since this permits simple editing of a mathematical expression displayed in textbook or graphical format.

As to claim 2, Applicant's admitted prior art and Eisenstein teach the cursor movement is controlled by the directional keys, Eisenstein teaches pressing the menu key EXPR (modified key) to size and position the selection box.

As to claim 3, Fig. 6d of Eisenstein teaches the object is copied in a screen. Applicant's admitted prior art teaches PASTE key shown in Fig. 1).

As to claim 4, Eisenstein teaches a previous entered expression can be recalled and copy it into a new mathematical expression (col. 4, lines 41-56), which reads on allow the user to use the copied object in other mathematical applications as claimed.

As to claim 5, note the discussion of claims 1 and 3 above.

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As to claim 6, Applicant's admitted prior art and Eisenstein teach the cursor movement is controlled by the directional keys. Eisenstein teaches pressing the menu key EXPR (modified key) to size and position the selection box.

As to claims 7, 8, Eisenstein teaches a previous entered expression can be recalled and copy it into a new mathematical expression (col. 4, lines 41-56), which reads on allow the user to use the copied object in other mathematical applications as claimed.

As to claim 9, note the discussion of claim 1 above. In addition, Eisenstein teaches the object is a mathematical object.

As to claim 10, Eisenstein teaches a previous entered expression can be recalled and copy it into a new mathematical expression (col. 4, lines 41-56), which reads on allow the user to use the copied object in other mathematical applications as claimed.

As to claims 11, 12, Applicant's admitted prior art as modified by Eisenstein does not disclose the user using directional keys to size and position the selection box over an object or to select a sub-expression. However, Applicant's admitted prior art and Eisenstein teach the user using directional keys to control the cursor movement. Eisenstein teaches the user using modified key on the keypad to size and position the selection box, wherein the modified keys on the keypad are programmable. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of the handheld device of Applicant's admitted prior art as modified by Eisenstein to be programmed so as to allow the user to use directional keys to size and position the selection box as claimed since it provides easy manipulation of controlled object and efficient use of the limited number of keys on the calculator.


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3. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is 703-305-4719. The examiner can normally be reached on Monday-Friday from 9AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (703) 308-6725. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Regina Liang  
Primary Examiner  
Art Unit 2674

2/23/05